SOKOLOWSKI, T.

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1. Zespol I Kliniki Chirurgicznej AM Szczecin.
(BANDAGING AND DRESSING,
fixed dressing in osteoarticular inj.)

SOKOLOWSKI, Tadeusz. Szczecin, Leszczynskiego 39

Creation of bile outflow from hepatic parenchyma to stomach in obliteration of extrahepatic bile ducts. Polski tygod. lek. 12 no.16:603-606 15 Apr '57.

1. (Z I Kliniki Chirurgicznej P. A. M. w Szczecinie; kierownik Kliniki: prof. dr med. T. Sokolowski).
(HEPATIC DUCT, dic.
obstruct., surg., hepatogastrostomy (Pol))

SOKOLOWSKI, Tadeusz

A method for conducting discussion at a scientific conference.
Polski tygod.lek. 14 no.50:2203-2206 D '59.

1. Wyklad na kunsie retoryki Pomorskiej Akademii Medycznej.
(CONGRESSES)

SOKOLOWSKI, Tadeusz

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(SURGERY)
(HOSPITALS)

SOKOLOWSKI, Tadeusz

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(PERIODICALS)
(SURGERY)

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(RESUSCITATION)

SOKOLOWSKI, Tadeusz

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(FRACTURES surg)

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1. Z Oddzialu Okulistycznego Szpitala Miejskiego w Sosnowcu Ordynator: dr med. T.Sokolowski Dyrektor szpitala: dr med. Z Ohorzewski.
(LACRIMAL APPARATUS dis) (CYSTS)

SOKOLOWSKI, Tadeusz

SOKOLOWSKI, Tadeusz (Mgr. Eng.): Zasady Eksploatacji w Transporcie Samochodowym (Principles of Utilization in Motor Transport). Warsaw: Transport Publications, 1956. 128 pp, 6 zlotys.

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JANECKI, Jozef, inz.; SOKOLOWSKI, Tadeusz, inz.

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Gosp paliw 11 Special issue no.(95):46-47 Ja'63.

1. Energoprojekt, Poznan.

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SOKOLOWSKI, Wladyslaw, mgr., inz.

Factory transportation in the cotton industry. Ekonomika org pracy 13 no.4:150-153 Ap '62.

ENDZELINS, J., akademik; SOKOLS, E., otv. red.; BENDIKS, H., red.; DAMBE, V., red.; GRABIS, R., red.; ZUTIS, J., red.; OSINS, E., tekhn. red.

[Place names in the Latvian S.S.R.] Latvijas PSR vietvardi. Riga, Latvijas PSR Zinatnu akad. izdevnieciba. Pt.1., Vol.2. K - O. 1961. 505 p. (MIRA 15:3)
(Latvia--Names, Geographical)

SARYCHEVA, Tat'yana Georgiyevna, doktor biolog. nauk, prof.;
SOKOL'SKAYA, Anna Nikolayevna; BEZNOSOVA, Galina Aleksandrovna;
MAKSIMOVA, Svetlana Viktorovna; MESSNER, O.M., red. izd-va;
SHEVCHENKO, G.N., tekhn. red.

[Brachiopods and the paleogeography of the Carboniferous in the Kuznetsk Basin.] Brakhiopody i paleogeografiia karbona Kuznetskoi kotloviny. Moskva, Izd-vo Akad. nauk SSSR, 1963. 546 p. (Akademiia nauk SSSR. Paleontologicheskii institut, Trudy, vol. 95) (MIRA 17:1)

SOKOL'SKAYA, A. M. PA 63/49T14

USSR/Chemistry - Saponins Jul 49
Chemistry - Emulsifying Agents

"The Saponins," A. M. Sokol'skaya, 4 pp

"Priroda" No 7

Gives chemical formulas for sesquiterpene, sterol and digitalis groups of saponins. Discusses methods of separating saponins. Their uses include: a poison for fish which leaves them edible, and an emulsive agent for vegetable and essential oils. They are used in fire extinguishers in photochemistry, in medicine (diabetes, etc.), and in preparing vaccines.

63/49T14

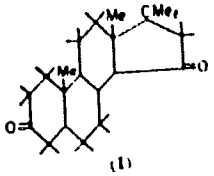
C a
1951

B. Biological Chemistry
II B Botany

Saponin of the roots of Patrinia intermedia A. M. Sokol'skaya. *Zhur. Obshchel Khim.* (J. Gen. Chem.) 21, 959-62(1951).—The plant roots contain some 13% saponin, whose analysis corresponds to $C_{43}H_{68}O_{18}$; 1% EtOH soln. has $[\alpha]_D^{20}$ + 0.42°; surface tension of 1% aq. soln. is 61.46 dynes/cm. It gives ppts. with $Ba(OH)_2$ and Pb salts. It is devoid of CO_2H groups. In the cold or on slight heating it does not react with Fehling soln. and merely gives green color; it does give typical saponin color reactions (H_2SO_4, Liebermann, Levin reactions). The material appears to contain 2 units of sapogenin and 1 mole each of fructose and a pentose. This saponin, named, *patrinin*, is toxic to tadpoles at 1:120,000 dilu. and hemolyzes blood like snake venoms. The material is best purified by extn. with 80% EtOH, and pptn. with Et_2O. The saponin forms a compd. with cholesterol, crystals (from EtOH). G. M. K.

C. 7.

Sapogenin of the roots of Patrinia intermedia A. M. Sokol'skaya. *Zhur. Obshchei Khim.* (J. Gen. Chem.) 21, 902-7(1951). Hydrolysis of patrinin by 5% H_2SO_4 yields the sapogenin, *patringenin*, isolated in 20% yield in purified state. Its structure appears to be (I) on the basis of



(I)

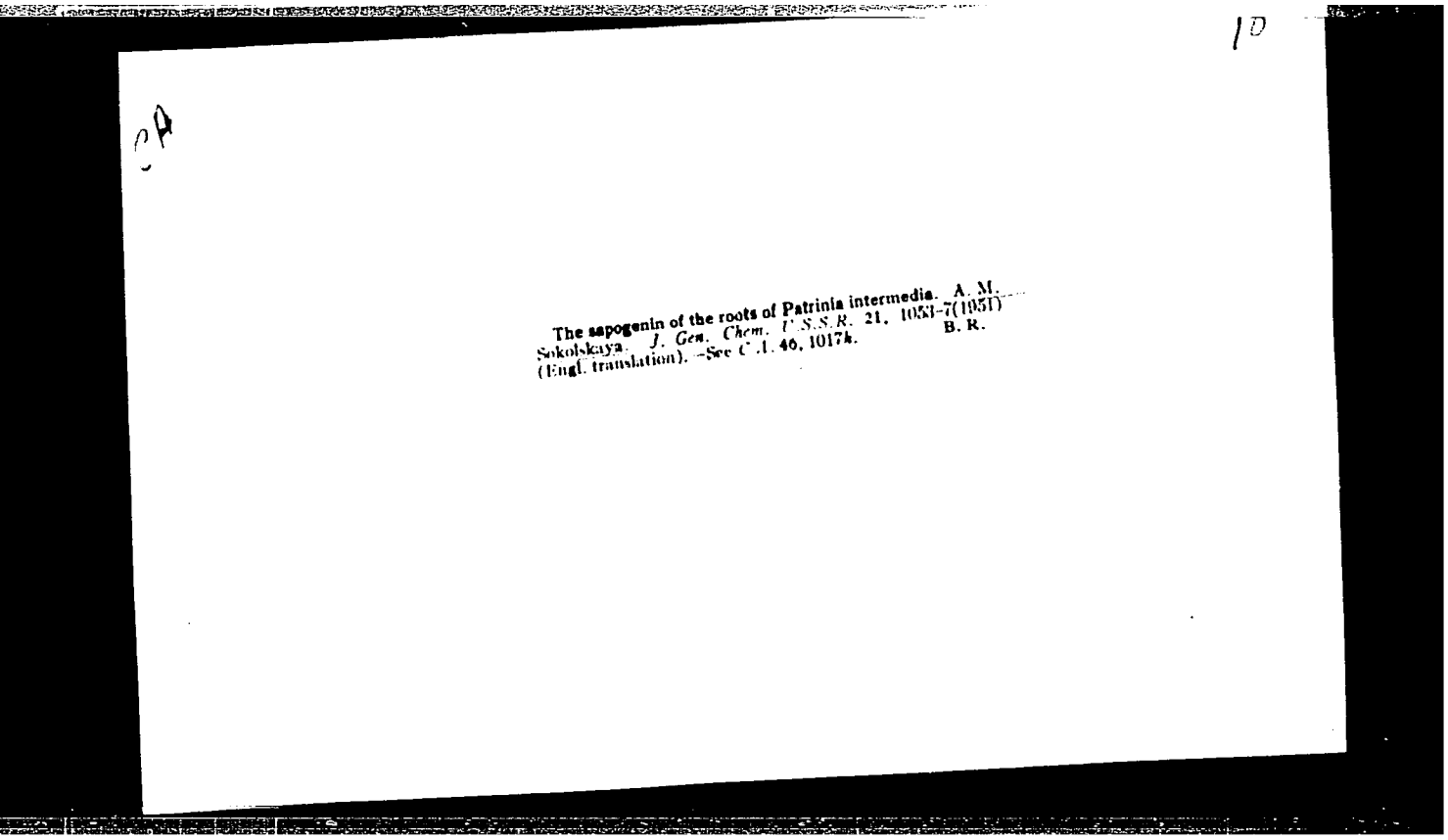
the formula $C_{11}H_{16}O_3$, and the formation of a *bis*(2,4-*dinitrophenylhydrazone*), decomp. 248-51° (from EtOH), *dioxime*, m. 203-5° (from MeOH), and *semicarbazone*, m. 190-8.5° (from EtOH). Acetylation with Ac_2O-NaOAc failed, as did methylation with CH_2N_2. Oxidation with CrO_3 gave an apparent *tricarboxylic acid*, $C_{14}H_{18}O_6$, m. 247-50°, by ring cleavage at the 3- and 12-C atoms, and iso-$BuCO_2H$.

G. M. Kresolatoff

CA

110

The saponin of the roots of Patrinia intermedia. A. M. Sokolskaya. *J. Gen. Chem. U.S.S.R.* 21, 1049-51(1951) (Engl. translation).—See *C.A.* 45, 9139d. B. R.



The sapogenin of the roots of Patrinia intermedia. A. M. Sokolskaya. *J. Gen. Chem. U.S.S.R.* 21, 1053-7(1951) (Engl. translation). -See C.A. 46, 1017h. B. R.

SOKOL'SKAYA, A.M.

USSR/ Chemistry - Physical chemistry

Card 1/1 Pub. 123 - 7/12

Authors : Sokol'skaya, A. M., Candidate of Chem. Scs.

Title : Steroid saponin

Periodical : Vest. AN Kaz. SSR 6/123, 69-84, June 1952

Abstract : The molecular structure of steroid saponins, which are a group of ghycosides, is described. Fifty references: 4 USSR, 11 German and and 35 USA (1916-1954). Tables.

Institution : .....

Presented by: Active Member of the Acad. of Scs., Kaz. SSR., M. I. Goryaev

SOKOLSKAYA, A.M.

Effect of some factors on the rate of hydrogenation of carbinols. A. M. Sokol'skaya (Kazakh State Univ., Alma-Ata). *Konferentsiya po Obshchemu i Prikladnomu Organicheskomu Kataliticheskomu Okisleniyu, Akad. Nauk Kazakh. S.S.R., Trudy Konf.* 1955, 153–4.—Hydrogenation of $MeEtC(OH)CH:CH_2$, $MePrC(OH)CH:CH_2$, 2-methyl-1-vinylcyclohexanol, $MeEtC(OH)C:CH$, and $MePrC(OH)C:CH$ was examd. in EtOH, H_2O, AcOH, PhOH, and C_6H_6 over Raney Ni and Pt; the hydrogenations were run in series in which the temp. was either gradually raised to a 50° max. or lowered to a 5° min. The results are shown graphically. The reaction was relatively more slow in PhOH and C_6H_6 than in EtOH or aq. EtOH, being most rapid in 100% EtOH. It is suggested that apparent activation energies of hydrogenation be calcd. from data obtained after the irreversible processes on the catalyst had been completed.

G. M. Kosolapoff

5-0-0-0

SOKOL'SKAYA, A.M.; MANION, L.N.

Triterpene saponins. Vest. AN Kazakh. SSR 11 no.4:74-80 Ap '55.
(MLRA 8:8)

1. Predstavlena deystvitel'nym chlenom AN KazSSR M.I. Goryayevym.
(Saponins) (Triterpenes)

SOKOL'SKAYA, A. M.

USSR

Steroidal saponins. A. M. Sokol'skaya. *Vestnik Akad. Nauk Kazakh. S.S.R.*, 11, No. 6 (Whole No. 123), 69–84 (1955).—A review with 50 references. G. M. K.

SOKOL'SKAYA, A.M.

Saponins of the Kazakhstan flora. A. M. Sokol'skaya. *Aptechnoe Delo* 5, No. 6, 22-4(1956).—*Patrinia intermedia* which grows upon the mountains near Alma-Ati contains 13% of a saponin which was named patrinin; $C_{43}H_{68}O_{18}$, hemolytic index—40,000, foam number—13. An aqueous solution (0.1%) irradiated for 10 min. with ultraviolet accelerates fermentation. Hydrolysis with 5% H_2SO_4 yields sapogenin ($C_{31}H_{48}O_4$)-64.31%. The reducing substances (33.6%) consist of fructose (17.43%) and pentose (14.68%). *Rheum maximowiczi* contains no saponin but a small amount (0.7%) of a glucoside of the formula $C_{21}H_{19}O_{10}$. Hydrolysis with 7% H_2SO_4 yields glucose, gallic acid and a substance of the formula $C_8H_{12}O_6$ which was not investigated further. *Medicago sativa* contains two kinds of saponin; a nitrogenous(0.6%)and non-nitrogenous (0.2%). Neither one could be freed despite several purification methods from mineral impurities. Another saponin was obtained from *Gypsophila paniculata* in yields of 13.2%. It has a very high foam number—100,000. Hydrolysis with 5% H_2SO_4 is difficult and tedious. It cannot be freed from mineral impurities. A. S. Mirkin

SOKOL'SKAYA, A.M.

USSR/Physical Chemistry - Kinetics, Combustion, Explosions, Topochemistry, Catalysis. B-9

Abs Jour : Referat Zhur - Khimiya, No 1, 1958, 510

Author : A.M. Sokol'skaya, D.V. Sokol'skiy.

Inst : Academy of Sciences of Kazakh SSR.

Title : Catalytic Hydrogenation of Some Substituted Ethylenes.

Orig Pub : Izv. AN KazSSR. Ser. Khim., 1957, vyp. 1, 51-57

Abstract : The hydrogenation speed of monosubstituted ethylenes in presence of the powdered Ni-catalyst decreases in the following order: methylethylvinylcarbinol and methylpropylvinylcarbinal, 2-methyl-1-vinylcyclohexanol-1, 1-vinylcyclohexanol-1. The activation energy is 5 to 6 kcal per mole.

Card 1/1

SOKOLSKAYA, A.M.

Steroid saponins and sapogenins. Apt.delo 6 no.4:81-83 Jl-Ag '57.
(MLRA 10:9)

1. Iz kafedry organicheskoy khimii Kazakhskogo universiteta imeni S.M.Kirova.
(SAPONINS) (SAPOGENINS)

SOKOL'SKAYA, A.M.; SOKOL'SKIY, D.V.

Hydrogenation of cinnamic alcohol (styron). Trudy Inst.khim. nauk AN Kazakh.SSR 5:110-113 '59. (MIRA 13:6)
(Cinnamyl alcohol)

B

26622
Z/011/61/018/001/001/014
E112/E453

53610

AUTHORS: Sokolskaya, A.M. and Meyerovich, A.D.

TITLE: Hydrogenation of nitriles

PERIODICAL: Chemie a chemická technologie, 1961, Vol.18, No.1, p.17, abstract Ch 61-231 (Izv. Akad. Nauk Kazakh.SSR. Ser. Khim., 1960, No.2, pp.93-100)

TEXT: The dinitrile of terephthalic acid was converted to p-xylilene-diamine by hydrogenation over a catalyst consisting of an alloy of 48% Ni, 50% Al and 2% Ti. The reaction was carried out in n-butyl alcohol in the presence of ammonia and under pressure. Best yields of p-xylilene-diamine were obtained with 40% of the above catalyst with the addition of ammonia (liquid) at 180°C. 5 literature references.

[Abstractor's note: Complete translation.]

Card 1/1

SOKOL'SKAYA, A.M.; SABIROVA, A.A.; KOLODINA, I.S.

Extraction of saponin from Gleditschia australis leguminosae and Sapindus mukorossi G. sapindaceae. Apt. delo 9 no. 5:23-25 S-O '60. (MIRA 13:10)

1. Kafedra organicheskoy khimii Kazakhskogo gosudarstvennogo universiteta imeni S.M. Kirova.
(SAPONINS) (HONEY LOCUST) (SOAPBERRY)

SOKOL'SKAYA, A.M.; VDOVENKO, N.N.

Hydrogenation of hydroxycodeinone. Vest.AN Kazakh.SSR 16 no.2:44-48 F '60. (MIRA 13:6)
(Codeinone) (Hydrogenation)

S/031/60/000/011/002/008
A161/A133

25170

5.3300

AUTHORS: Sokol'skaya, A.M., Sokol'skiy, D.V.

TITLE: Hydrogenation of tolane

PERIODICAL: Akademiya nauk Kazakhskoy SSR, Vestnik, no. 11, 1960, 20 - 23

TEXT: The kinetics of tolane hydrogenation were studied in alcohol solutions of nickel, platinum and palladium, with simultaneous measurement of the catalyst's potential. Reference is made to the first hydrogenation of tolane by Kelber and Schwarz (Ref. 1) (of 1912) in acetic acid solution with colloidal platinum, and later by Zal'kind and Il'in (Ref. 2) in solution with colloidal palladium. The authors used the same method and apparatus as were employed previously(Ref.3) for hydrogenation of styron. Tolane of a melting point of 62°C, was employed in the form of a benzene solution (1 millimeter - 0.0712 g tolane). Hydrogenation was carried out in the presence of skeleton nickel, platinum oxide (prepared by the Frampton's method (Ref. 5) - Frampton, Edwards and Henze. Amer Chem Soc. 1951, 73, 1443). Freshly distilled 96 - % ethanol was used as solvent. The results of experiments are illustrated by diagrams. The kinetic and potentiometric curves in the case of 0.1 g skeleton nickel show that the reaction order

Card 1/3

SOKOL'SKAYA, A.M.; ZHELNINA, A.A.; SOKOL'SKIY, D.V.

Hydrogenation of cinnamyl alcohol. Report No.2. Trudy Inst. khim.nauk AN Kazakh.SSR 7:54-56 '61. (MIRA 15:8)
(Cinnamyl alcohol) (Hydrogenation)

SOKOL'SKAYA, A.M., kand. khim. nauk; ZHELNINA, A.A.; DANILOVA, [illegible]

Hydrogenation of the α-form of N-allyl-2,6-dimethyl-4 hydroxy-piperidine. Vest.AN Kazakh.SSR 18 no.5:81-86 My '62. (MIRA 17:10)

SOKOL'SKAYA, A.M.

Hydrogenation of alkenes. Report No.1: Hydrogenation of some olefins. Trudy Inst.khim.nauk AN Kazakh.SSR 8:56-63 '62. (MIRA 15:12)

(Olefins) (Hydrogenation)

SOKOL'SKAYA, A.M.; RYABININA, S.A.; SOKOL'SKIY, D.V., akademik

Hydrogenation on Pt and Pd during the feeding of the unsaturated compound at a uniform rate. Dokl. AN SSSR 152 no.5:1126-1129 O '63. (MIRA 16:12)

1. Kazakhskiy gosudarstvennyy universitet im. S.M.Kirova.
2. AN KazSSR (for Sokol'skiy).

SOKOL'SKAYA, A.M.; RESHETNIKOV, S.M.; SOKOL'SKIY, D.V., akademik

Hydrogenation of unsaturated compounds in buffer solutions.
Dokl. AN SSSR 152 no.6:1369-1372 O '63. (MIRA 16:11)

1. Kazakhskiy gosudarstvennyy universitet im. S.M. Kirova.
2. AN KazSSR (for Sokol'skiy).

SOKOL'SKAYA, A.M.; ZHELNINA, A.A.; DANILOVA, K.F.

Hydrogenation of the β -form of N-allyl-2,5-dimethyl-4- xy- piperidine. Vest. AN Kazakh. SSR 20 no.1:59-63 Ja '64. (MIRA 17:3)

SOKOL'SKAYA, A.M.; RESHETNIKOV, S.M.

Effect of the pH value on the hydrogenation speed of conjugate systems. Vest. AN Kazakh. SSR 20 no.2:50-58 F '64.

(MIRA 18:1)

SOKOL'SKAYA, A.M.; KUZEMBAYEV, K.K.

Hydrogenation of phenylacetylene. Vest. AN Kazakh. SSR 20 no.7: 45-50 Jl '64. (MIRA 17:11)

SOKOL'SKAYA, A.M.; RESHETNIKOV, S.M.

Connection between electrochemical and catalytical reactions with the participation of hydrogen. Vest. AN Kazakh.SSR 20 no.11:42-46 N '64. (MIRA 18:2)

KUZEMBAYEV, K.K.; SOKOL'SKAYA, A.M.

Chromatographic separation of phenylacetylene and products of its hydrogenation. Zav. lab. 30 no.9:1077 '64. (MIRA 18:3)

1. Kazakhskiy gosudarstvennyy universitet imeni Kirova.

RESHETNIKOV, S.M.; SOKOL'SKAYA, A.M.

Hydrogenation mechanism in buffer solutions. Izv. AN Kazakh. SSR. Ser. khim. nauk 14 no.1:52-59 Ja-Mr '64. (MIRA 18:3)

SOKOL'SKAYA, A.M.; BESHETNIKOV, S.M.; SOKOL'SKIY, D.V., akademik

Effect of pH on hydrogen adsorption by platinized platinum.
Dokl. AN SSSR 159 no.4:907-909 D '64 (MIRA 18:1)

1. Kazakhskiy gosudarstvennyy universitet imeni S.M. Kirova.
2. AN KazSSR (for Sokol'skiy).

RESHETNIKOV, S.M.; SOKOL'SKAYA, A.M.

Hydrogenation in buffer solutions. Izv.vys.ucheb.zav.; khim. i khim.tekh. 7 no.2:217-220 '64. (MIRA 18:4)

1. Kazakhskiy gosudarstvennyy universitet im. S.M.Kirova, kafedra organicheskoy khimii.

SOKOL'SKAYA, A.M.; RESHETNIKOV, S.M.

Hydrogenation of 3-sulfolene. Kin.i kat. 6 no.3:559-562 My-Je '65. (MIRA 18:10)

1. Kazakhskiy gosudarstvennyy universitet imeni Kirova.

SOKOL'SKAYA, A.A.; SOKOL'SKIY, D.V.

Electrochemical methods of studying the mechanism of catalytic hydrogenation in solutions. Kin. i kat. 6 no.4:658-665 Jl-Ag '65. (MIRA 18:9)

1. Kazakhskiy gosudarstvennyy universitet imeni S.M.Kirova.

REGHATNIKOV, S.M.; SOKOLSKIY, A.M.; SOKOL'SKIY, D.V.

Relation between values of the preexponential factor and catalyst potential shift in the hydrogenation reaction. Izv. AN Kazakh.SSR.Ser.khim.nauk 15 no.3:62-66 Jl-Ag '65. (MIRA 18:11)

1. Submitted January 16, 1965.

SOKOL'SKAYA, [illegible], kand. khim. nauk; RYABINA, S.I.

Hydrogenation of benzalacetone. Vest. AN Kazakh. SSR 22 no.8: 45-51 Ag '65. (MIRA 18:9)

SOKOL'SKAYA, A.M.; RYABININA, S.A.; SOKOL'SKIY, D.V.

Hydrogenation of dimethylethynylcarbinol in the presence of alkali metal cations. Elektrokhimiia 1 no.9:1098-1103 S '65. (MIRA 18:10)

1. Kazakhskiy gosudarstvennyy universitet imeni S.M. Kirova.

[illegible] TNIKOV, L.M.; SOKOL'SKAYA, A.M.

Correlation between the catalytic activity of certain metals, metal-hydrogen bond strength and work function of an electron. Zhur. fiz. khim. 39 no.6:1356-1358 Je '65. (MIRA 18:11)

1. Kazakhskiy gosudarstvennyy universitet imeni Kirova.
Submitted Dec. 10, 1963.

SOKOLSKAYA, A. N.

"New Data on the Fauna and Age of Strata Bounded by the Devonian and Carboniferous in the Moscow Basin," Dok. AN, 26, No. 2, 1940. Mbr., Inst. Paleontogy, Dept. Biol. Sci., Acad. Sci., -1940-.

SOKOL'SKAYA A.N.: SARYCHEVA T.G.

Mbr., Paleontology Institute, Acad. Sci. 1947

"New Data on the Distribution of Striatifera Striata Fisch" Dok. AN, 56, No.1, 1947

SOKOL'SKAYA, A.N.; OBRUCHEV, otvetstvennyy redaktor; SARYCHEVA, T.G., redaktor vypuska; AMLINSKIY, I.Ye., redaktor izdatel'stva; DIKOV, V.N., tekhnicheskiy redaktor.

[Evolution of the genus Productella Hall and allied forms in the Paleozoic of the Moscow Basin.] Evoliutsiia roda Productella Hall i smezhnykh s nim form v paleozoe Podmoskovnoi kotloviny. Moskva, izd-vo Akad. nauk SSSR, 1948. 167 p. (Akademiia nauk SSSR. Paleontologicheskii institut. Trudy, vol.14, no.3) (MLRA 10:7)
(Moscow Basin--Brachiopoda, Fossil)

[redacted], I. M.

21549 [redacted], I. M.

V ozmatnyye izmeneniya khonetid i ikh takconomicheskoye znacheniye.
Trudy Paleontol. in - ta (Akad. nauk SSSR), t. XX, 1949, s. 268 - 79.
Bibliogr: s. 277 - 78.

SO: Letopis' Zhurnal'nykh Statey, No. 29, Moskva, 1949.

SOKOL'SKAYA, A.N.

The Committee on Stalin Prizes (of the Council of Ministers USSR) in the fields of science and inventions announces that the following scientific works, popular scientific books, and textbooks have been submitted for competition for Stalin Prizes for the years 1952 and 1953. (Sovetskaya Kultura, Moscow, No. 22-40, 20 Feb - 3 Apr 1954)

Name	Title of Work	Nominated by
Sokol'skaya, A. N.	"Handbook of Paleozoic Brachypods of the Moscow Basin"	Paleontological Institute, Academy of Sciences USSR

SO: W-30604, 7 July 1954

SARYCHEVA, T.G.; SOKOL'SKAYA, A.N. [authors]; STEPANOV, D.L. [reviewer].

New type of paleontological publication ("Guide to Paleozoic brachiopds of the Moscow Basin." T.G.Sarycheva, A.N.Sokol'skaia. Reviewed by D.L.Stepanov). Izv.AN SSSR. Ser.geol. no.4:136-138 Jl-Ag '53. (MLRA 6:8)
(Sarycheva, T.G.) (Sokol'skaia, A.N.) (Moscow Basin--Brachiopoda, Fossil) (Brachiopoda, Fossil--Moscow Basin)

SARYCHEVA, T.G.; SOKOL'SKAYA, A.N. [authors]; VARSANOF'YEVA, V.A. [reviewer].

"Guide to Paleozoic brachiopods of the Moscow Basin." T.G.Sarycheva, A.N. Sokol'skaia. Reviewed by V.A.Varsanof'eva. Biul.MOIP. Otd.geol. 28 no.3: 74-75 '53. (MLRA 6:11)
(Moscow Basin--Brachiopoda, Fossil) (Brachiopoda, Fossil--Moscow Basin)
(Sarycheva, T.G.) (Sokol'skaia, A.N.)

SOKOL'SKAYA, A.N.; SARYCHEVA, T.G., otvetstvennyy redaktor; MERKLIN, R.L., redaktor; GRAKOVA, Ye.D., tekhnicheskiy redaktor.

Strophomenidae of the Russian Platform. Trudy Paleont. inst. 51:3-191 '54. (MLRA 8:2)
(Russian Platform--Brachiopoda, Fossil)

Sokol'skaya, A.N.

USSR/ Geology

Card 1/1 Pub. 22 - 34/47

Authors : Grayzer, M. I.; Obruchev, D. V.; and Sokol'skaya, A. N.

Title : New data about the growth of transient strata of the lower boundary of the Minusinsk syncline

Periodical : Dok. AN SSSR 98/5, 825-828, Oct 11, 1954

Abstract : New geological data regarding the growth of transient strata of the lower boundary of the Minusinsk basin are presented. Three USSR references (1936-1954).

Institution : ...

Presented by : Academician V. A. Obruchev, July 2, 1954

15-57-4-4111

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 4, pp 8-9 (USSR)

AUTHORS: Sarycheva, T. G., Sokol'skaya, A. N., Rozonova, Ye. D.

TITLE: The Boundary Between the Visean and Tournaisian Stages in the Kuznets Basin (O granitse vizeyskogo i turneyskogo yarusov v Kuznetskom basseyne)

PERIODICAL: Sov. geologiya, 1955, Sb 45, pp 144-160.

ABSTRACT: New studies of the fossils and lithology of the Lower Carboniferous rocks of the Kuznetsk Basin introduce several changes in the existing stratigraphic nomenclature (Rotay, A. P., Tsentr. n.-i. geol.-razved. in-ta, 1938, vyp. 102, 3-98). The horizon is taken as the fundamental stratigraphic subdivision. At the base of the Visean, together with the Pod'yakova zone of Rotay, the author recognizes the Mozzhukha horizon, which is lithologically extremely variable in the different regions of the Kuznets Basin. Tuffaceous beds of variable thickness occur everywhere at the base

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occur only in the Salair region. A fundation appeared in separate regions of the basin even during deposition of the continuous beds of Tournaisian limestones. The shallower water parts of the basin are clearly traced by the distribution of algal, oolitic, and other types of [illegible] sediments in them, and also by the systematic change in the groups of fossils occurring in them. In the shallow-water parts of the sea, groups of brachiopods are distinguished by their paucity. The predominant forms are Schuchertella, Chonetes, Athyris, and Camarotoechia. Representatives of the last genus were able to carry over into more unfavorable environments. As a consequence of this, identical facies of different ages show a similarity in the general features of the fossil groups, a fact that may be the cause of existing errors in determining the stratigraphic position of any particular sequence of beds. However, the specific content of groups of different ages is generally distinctive.

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T. G. S.

PROTSVETALOVA, T.N.; SARYCHEVA, T.G.; SOKOL'SKAYA, A.N.

Lower Carboniferous age of the Ostrog series in the Kuznetsk Basin. Izv.AN SSSR.Ser.geol. 21 no.2:86-100 F '56. (MLRA 9:5)

1. Paleontologicheskiy institut AN SSSR, Moskva.
(Kuznetsk Basin--Geology, Stratigraphic)

SOKOL'SKAYA, A.N.

Morphological characteristics and distribution of spiriferids of the group "Spirifer" darwini Morris. Paleont. zhur. no.1:58-70 '59. (MIRA 13:1)

1.Paleontologicheskiy institut Akademii nauk SSSR.
(Brachiopoda, Fossil)

SARYCHEVA, T.G.; SOKOL'SKAYA, A.N.

Carboniferous and Perimian brachiopod complexes in certain regions of southern Siberia and the Altai. Biul. MOIP. Otd. geol. 34 no.6:89-101 N-D '59. (MIRA 14:3)
(Siberia--Brachiopoda, Fossil)

3(5), 17(4)
AUTHORS: Sarycheva, T. G., Sokol'skaya, A. N. SOV/20-125-1-49/67

TITLE: On the Classification of the Pseudo-punctate Brachiopods (O klassifikatsii lozhnoporistykh brakhiopod)

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 125, Nr 1, pp 181-184 (USSR)

ABSTRACT: Since the first classifications (Beecher = Bicher, 1891, reference 1, Schuchert = Shukhert, 1929, reference 2) of brachiopods much experience has been gathered proving the incorrectness of their basis. During the past years several papers have been published, in which the usual classification is replaced by frequently only provisional, purely morphological schemes (Refs 2 - 6). In connection with writing the "Osnovy paleontologii" (Basic Trends of Paleontology) the authors arrived at the conclusion that the pseudo-punctate brachiopods are no homogenous group but 2 related, though independent, orders Strophomenida and Productida. Both of them lack a brachial apparatus and a projection capable of function in adult Productida and most of the Strophomenida. Only some old and more primitive types of the latter order have a projection.

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On the Classification of the Pseudo-punctate Brachiopods

There are, however, other specific structural characteristics that separate the two groups Productida: the dorsal valve remains in all cases concave or flat and is smaller than the ventral one. In the case of Strophomenida the dorsal valve is convex and larger than the ventral one. The areas are developed in all Strophomenidae (except Orthotetacea) on both valves have often a complicated structure with deltidium and chilidium, whereas in the case of Productida they are either notdeveloped or have a simple structure. After having mentioned further differences, the authors describe the two orders mentioned. They say to which systematic categories set up by other authors these orders belong and deal with their phylogenesis. (Fig 1). There are 1 figure and 8 references.

ASSOCIATION: Paleontologicheskiy institut Akademii nauk SSSR (Paleontological Institute of the Academy of Sciences, USSR)

PRESENTED: November 6, 1958, by A. L. Yanshin, Academician

SUBMITTED: November 4, 1958

BEZNOSOVA, R.A.; BENEDIKTOVA, R.V.; SARYCHEVA, T.G.; SOKOL'SKAYA, A.N.

Phylum Brachiopoda. Trudy SNIIGGIMS no.21:143-184 '62. (MIRA 16:12)

SOKOL'-SKAIA, A. P., RUNOV, E. V., KONOPLEVA, E. P.

Bacteriophage in the production of cheese; resistance of streptococcus lactis to cheese bacteriophage. Mikrobiologiia, Moskva 19:4, July-Aug., 50. p. 355-63

1. All-Union Scientific-Research Institute of Cheese Manufacturing Industry, Uglich.

CLML 19, 5, Nov., 1950

SOKOL'SKAYA, A.P.

Substitution of gypsum with paraffin in preparation of orthopedic apparatus. Probl. tuberk., Moskva No.6:70 Nov-Dec 51. (CLML 21:4)

1. Of Ivanovo Oblast Tuberculosis Sanatorium No 2 (Head Physician Honored Physician RSFSR A.L. Gal'perin).

SOKOLOVSKAYA, A.P.

Size of pollen grains and the number of chromosomes in certain arctic grass species. Bot.zhur.40 no.6:850-853 N-D '55.
(Grasses)(Pollen)(Chromosomes) (MLRA 9:4)

SOKOLSKAYA, A. P.

Proteolytic abilities of species of Penicillium. A. G. Romaškova, N. L. Mattison, and A. P. Sokol'skaya. *Vestnik Leningrad. Univ.* 15, No. 15, Ser. Biol. No. 3, 130-8(1960).—High proteolytic ability was found in *Penicillium roqueforti* as well as *P. aromaticum*. Cheese produced by the latter was comparable to that produced by *P. roqueforti*.
G. M. Kosolapoff

SOKOL'SKAYA, A.M.; SHARIFKANOV, A.Sh.; SARBAYEV, T.G.

Hydrogenation of β - and γ -forms of 2,5-dimethyl-4-ethinyl-4-piperidol. Izv.vys.ucheb.zav.; khim. i khim. tekh. 6 no.6: 965-969 '63. (MIRA 17:4)

1. Kazakhskiy gosudarstvennyy universitet imeni Kirova, kafedra organicheskoy khimii.

SOKOL'SKAYA, A. S. and ZEMSKOV, M. V.

"The Possibilities and Conditions of Infection with Leptospirosis From Sick Animals," Zhurnal Mikrobiologii, Epidemiologii i Immunobiologii No 1, 1953.

Voronezh Institute of Epidemiology and Microbiology and Chair of Microbiology of the Voronezh Medical Institute

Abstract W-27098, 25 Jul 53

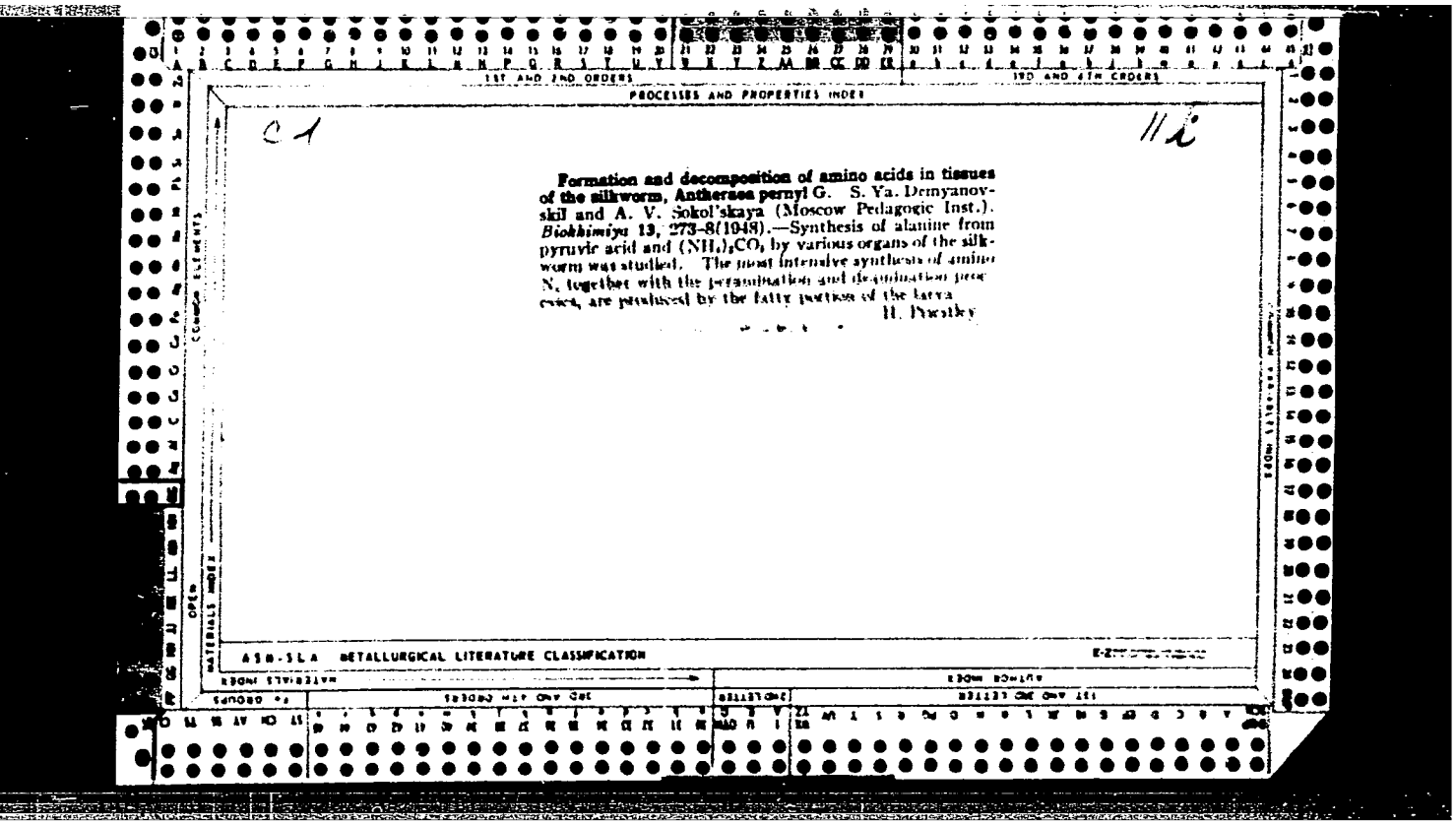
SOKOL'SKAYA, A. V. and S. Ya. Demyanovskiy

Mbr., Lab. Organic Chemistry & Biochemistry, Moscow State Pedagogical Inst., -1943-. "Changes in Water, Dry Substance and Total Nitrogen Content in the Silk Worm Antheraea Pernyi G. during Development," Biokhim, 8, No. 1, 1943; "Formation and Decomposition of Amino Acid in the Tissues of the Antheraea, ibid., 13, No. 3, 1948.

SOKOL'SKAYA, A. V. Cand. Chem. Sci.

Dissertation: "Formation and Decomposition of Amino Acids in the Tissues of Oak Silkworm." Moscow State Pedogogical Inst imeni V. I. Lenin, 16 Jun 47.

SO: Vechernyaya Moskva, Jun, 1947 (Project #17836)



PROCESSES AND PROPERTIES INDEX

C 1

11 i

Formation and decomposition of amino acids in tissues of the silkworm, Antheraea pernyi G. S. Ya. Demyanovskii and A. V. Sokol'skaya (Moscow Pedagogic Inst.). *Biokhimiya* 13, 273–8(1948).—Synthesis of alanine from pyruvic acid and $(NH_4)_2CO_3$ by various organs of the silkworm was studied. The most intensive synthesis of amino N, together with the transamination and deamination processes, are produced by the fatty portion of the larva.
H. Pacsky

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

SOKOLSKAYA, A. V.

Reaction of the silk-producing gland to the presence of amino acids in the surrounding medium. S. Ya. Demyanovskii and A. V. Sokol'skaya. *Uchenye Zapiski Moskov. Gosudarst. Pedagog. Inst. im. V. I. No. 7, 9-12(1953); Referat. Zhur., Khim.* 1954, No. 26811.—Addn. of amino acids to the hemolymph of the oak-silkworm larva increased the amt. of amino acid in the silk producing gland. The glycine content increased 20 times, compared with its original content. The gland sepd. from the body and placed in a soln. of amino acids absorbed them from the surrounding soln. The walls of the gland were demonstrated to be permeable to amino acids in the direction from soln. into gland. The gland was also proved capable of proteolytic action.

M. Hosah

EL'PINER, I.Ye.; SOKOL'SKAYA, A.V.

Effect of ultrasonic waves on carbohydrates [with summary in English]. Biofizika 2 no.2:225-233 '57. (MLRA 10:6)

1. Institut biologicheskoy fiziki Akademii nauk SSSR, Moskva.
(ULTRASONIC WAVES--PHYSIOLOGICAL EFFECT)
(CARBOHYDRATES)

46-3-14/15

AUTHORS: Sokol'skaya, A.V. and El'piner, I.Ye.

TITLE: On the Synthesis of Ammonia and Cyanic Compounds in an Ultrasonic Wave Field (O sinteze ammiaka i tsianistykh soyedineniy v pole ul'trazvukovykh voln)

PERIODICAL: Akusticheskiy Zhurnal, 1957, Vol.III, Nr 3, pp.293-294 (USSR)

ABSTRACT: It is known that oxidation of nitrogen takes place in an ultrasonic wave field. However, it has been shown that a reappearance of nitrogen will also take place under the action of ultrasonic waves. The reappearance of nitrogen in distilled water (formation of ammonia) irradiated with ultrasonic waves has been observed by the authors, using a preliminary saturation of the given liquid with nitrogen and hydrogen. The appearance of ammonia in the solution was established using a very sensitive Nessler's reagent. This reagent produces an orange colouring in the water when ammonia appears. A quantitative determination of ammonia was carried out by a colorimetric method (photoelectro-colorimeter-ФЭК-М). The distilled water and the gases which were used (nitrogen and hydrogen) were scrupulously

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On the Synthesis of Ammonia and Cyanic Compounds in an Ultrasonic Wave Field.

freed of oxygen. The irradiation was carried out at 380 kc/sec and 740 kc/sec, the intensity being 6-7 W/cm^2. The amount of ammonia synthesised in irradiated distilled water saturated with different gases is given in the following table:

Duration of irradiation in minutes	Amount of ammonia in $\gamma(10^{-6}g)$ per millilitre of water irradiated in the presence of gases.			
	Hydrogen	Nitrogen	Hydrogen and Nitrogen	Air
50	-	-	0.85	-
60	0	0	1.25	-
120	-	0.62	2.6	-
180		-	8.7	0.62
360	-	-	12.5	-

Card 2/3 A graph is given of the amount of ammonia as a function of

On the Synthesis of Ammonia and Cyanic Compounds in an Ultrasonic Wave Field.

irradiation. This approximates to a straight line. There is 1 table, 1 figure and no references.

ASSOCIATION: Institute of Biological Physics, Academy of Sciences, USSR, Moscow (Institut Biologicheskoy fiziki AN SSSR, Moskva)

SUBMITTED: March 22, 1957.

AVAILABLE: Library of Congress.

EL'PINER, I.Ye.; SOKOL'SKAYA, A.V.

Effect of ultrasonic waves on aliphatic amino acids [with summary in English]. Biofizika 3 no.2:190-196 '58. (MIRA 11:4)

1. Institut biologicheskoy fiziki AN SSSR, Moskva.
(ULTRASONIC WAVES--PHYSIOLOGICAL EFFECT) (AMINO ACIDS)

SOV-46-4-3-14/18

AUTHORS: Sokol'skaya, A. V. and El'piner, I. Ye.

TITLE: Synthesis of Some Organic Compounds in an Ultrasonic Field (O sinteze nekotorykh organicheskikh soyedineniy v pole ul'trazvukovykh voln)

PERIODICAL: Akusticheskiy Zhurnal, 1958, Vol 4, Nr 3, pp 288-289 (USSR)

ABSTRACT: In the previous note (Ref.1) it was shown that under the action of ultrasonic waves ammonia, prussic acid, and formaldehyde may be synthesised in water in the presence of nitrogen, hydrogen, and carbon monoxide. It was then suggested that the dissociation and ionisation of gases and molecules of the solvent takes place directly in the cavitation bubbles. There are reasons to believe that some organic compounds are activated in cavitation bubbles. As an example the authors quote chemical transformations of CH_2Cl_2 in an ultrasonic wave field. It was found that this substance gives a new compound in the presence of oxygen, which is not soluble in the given medium and is precipitated out. The substance was found to be $C_{10}H_7O_3Cl_2$. An infrared analysis of this substance gave the curve shown in Fig.1. Thus chemical processes

SOV-46-4-3-14/18

Synthesis of Some Organic Compounds in an Ultrasonic Field

taking place in cavitation bubbles may lead to the synthesis of a number of new substances. R. Kh. Freydlinaya and V. I. Mal'shev are thanked for their assistance. There are 2 figures and 2 references, 1 of which is Soviet.

ASSOCIATION: Institut biologicheskoy fiziki, AN SSSR, Moskva (Institute of Biological Physics, Academy of Sciences USSR, Moscow)

SUBMITTED: March 25, 1958.

1. Organic compounds--Synthesis 2. Chemical reactions--Acoustic factors
3. Bubbles--Applications 4. Cavitation--Applications

Card 2/2

AUTHORS: El'piner, I. Ye., Sokol'skaya, A. V. 2o-119-6-36/56

TITLE: On the Synthesis of Substances in a Water Saturated With Gases of a Reduction Atmosphere Under the Action of Supersonic Waves (O sinteze veshchestv v nasyshchennoy gazami vosstanovitel'noy atmosfery vode pod deystviyem ul'trazvukovykh voln)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol. 119, Nr 6, pp. 1180 - 1182 (USSR)

ABSTRACT: The data given in this work show the following: The propagation of very intensive supersonic waves in water causes also in the case of the absence of oxygen chemical processes in which various new substances form. In a water saturated with gaseous hydrogen and molecular iodine a dissociation of iodine takes place under the action of supersonic waves. This process takes place obviously in a cavitation cavity where the iodine molecules diffuse together with the molecular hydrogen. The ionisation (or dissociation) of iodine is closely connected with the parallel ionisation (or dissociation) of hydrogen. In the last time the authors were able to show that also other gases are activated under the action of supersonic waves, e.g. in the case of the

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presence of oxygen and nitrogen in irradiated water ammonia forms. The water on this occasion was irradiated in glass containers at an intensity of the sound waves of 6 -7 watt per 1 cm^3. The method for the purification of nitrogen from oxygen is discussed. The quantity of the ammonia forming increases with increasing duration of irradiation. The presence of carbon monoxide in the gas mixture nitrogen - hydrogen does not diminish the production of ammonia in the water exposed to sound. Further in water exposed to sound in the presence of N_2,CO and H_2 also HCN forms, and besides forms in water exposed to sound also formaldehyde if in this water hydrogen and carbon monoxide are present. Sound oscillations and supersonic vibrations together with other physical causes (ultraviolet rays, electric discharges and radioactive decay) might also have served as energy sources for the most important substances which serve as materials for the building of living organisms in the initial period of the existence of our planet. There are 2 tables

:7(4) SOV/20-123-4-23/53

AUTHORS: El'piner, I. Ye., Sokol'skaya, A. V.

TITLE: The Effect of Ultrasonics on Some Proteins and Amino Acids as Related to the Nature of the Gas Present (Deystviye ul'trazvuka n nekotoryye belki i aminokisloty v zavisimosti ot prirody prisutvuyushchego gaza)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol 123, Nr 4, pp 659-662 (USSR)

ABSTRACT: The data found by the authors of the present report show the following: The development of chemical processes in a field of ultrasonic waves is influenced also by inert gases (i.e. by noble gases). Besides, the various noble gases differ from one another in this respect. In the present study argon and helium are used. Investigations were carried out with proteins, amino acids and other organic compounds. The rate of the chemical processes was estimated from the quantity of formaldehyde formed in the aqueous solution of the organic compound subjected to ultrasonic irradiation. As source of the ultrasonic waves a piezoquartz generator was used; the frequency of the ultrasonic waves employed amounted to 330,000 cycles, and the intensity of oscillations was 3-4 watt/cm^2. In the aqueous solutions of several amino acids saturated with

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The Effect of Ultrasonics on Some Proteins and Amino Acids as Related to the Nature of the Gas Present

oxygen (glycocoll, alanine, serine, glutamic acid, aspartic acid) formaldehyde is actually produced under the influence of the ultrasonic waves. However, the largest quantity of formaldehyde (about 30-40% more than in the case of saturation with oxygen) is formed in the case of a previous saturation of the solutions with argon. In the case of saturation with helium the velocity of the separation of formaldehyde from the amino acids is hardly accelerated. Similar results are obtained also by the investigation of the formation velocity of formaldehyde in an aqueous solution of keto-glutaric aicd subjected to ultrasonic irradiation as well as egg albumin and serum albumin. The presence of argon intensities the coagulating effect produced by the ultrasonic waves upon the albumin solutions considerably. The results obtained by the experiments carried out indicate the possibility of regulating the course of chemical processes in the solution subjected to ultrasonic irradiation. They also open up new prospects of explaining the mechanism of the chemical and biological effect of ultrasonic waves. There are 2 figures, 1 table, and 8 references, 6 of which are Soviet.

SOV/20-123-4-23/53

The Effect of Ultrasonics on Some Proteins and Amino Acids as Related to the Nature of the Gas Present

ASSOCIATION: Institut biologicheskoy fiziki Akademii nauk SSSR (Institute for Biological Physics of the Academy of Sciences, USSR)

PRESENTED: July 17, 1958, by A. I. Oparin, Academician

SUBMITTED: July 17, 1958

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~~17(10)~~ 5.2200(c)

AUTHORS: El'piner, I.Ye., Sokol'skaya, A.V. SOV/20-129-1-56/64

TITLE: On the Processes of Oxidation of Iron Ions in a Field of Ultrasonic Waves

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 129, Nr 1, pp 202-204 (USSR)

ABSTRACT: The oxidation processes taking place in an aqueous medium under the influence of ultrasonic waves are probably due to the activation of oxygen and the appearance of a free OH radical which is the product of the cleavage of the water molecule (Refs 1-3). There are reasons for the belief that the activation or ionization of the water molecules and various gases takes place in cavitations which form in the aqueous medium under ultrasonic irradiation. Various inert gases with which the water is saturated are activated in the field of the ultrasonic waves, but not all of them in the same way. Helium suppresses all the oxidation processes investigated by the authors. These differences are liable to open up new ways of studying the elementary processes which are at the root of the phenomenon of oxidation. The authors exposed 0.01 n. solutions of $FeSO_4$ in 1.1 n. H_2SO_4

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to the impact of ultrasonic waves. Prior to this treatment these solutions were saturated with oxygen, argon, or helium for one hour. Figure 1 shows the standard curve for the determination of $Fe_2(SO_4)_3$ by means of the spectrophotometer SF-4. Figure 2 contains the results of the determination of the amount of Fe^{2+} ions chemically transformed in the field of ultrasonic waves. Similarly, the concentration of Fe^{3+} ions produced by the said impact is given. It can be seen from this figure that the amount of the "disappeared" Fe^{2+} ions is not equal to that of newly produced Fe^{3+} ions, if the dissolution took place in the presence of oxygen. There is hardly any loss of Fe^{2+} ions to be found in the presence of helium, while there is a considerable loss in the case of argon. In this case there is no divergency between the loss of Fe^{2+} ions and the addition of Fe^{3+} ions as was found in the case of oxygen. Thus the chemical transformation of divalent iron is restricted to the transformation into

On the Processes of Oxidation of Iron Ions in a Field of Ultrasonic Waves

trivalent ions, if an argon-saturated solution is treated with ultrasonic waves. This process is probably due to the appearance of the OH radicals formed by the cleavage of water molecules. If the solution is saturated with oxygen, the molecules of the latter participate in the reaction. Here, such iron compounds are formed as cannot be detected by means of the methods for the determination of di- and trivalent iron used in this case. Apparently, these compounds are rather unstable iron peroxides. M.A. Proskurnin and collaborators (Refs 7,8) in this connection develop conceptions regarding the effect of ionizing radiation upon Fe^{2+}. The results cited here may be considered a confirmation of Bakh's peroxide theory in the chemistry of ultrasonic waves. There are 3 figures and 8 references, 6 of which are Soviet.

ASSOCIATION: Institut biologicheskoy fiziki Akademii nauk SSSR (Institute of Biological Physics of the Academy of Sciences, USSR)

PRESENTED: July 1, 1959, by L.S. Shtern, Academician

66501

On the Processes of Oxidation of Iron Ions in a Field of Ultrasonic Waves

SOV/20-129-1-56/64

SUBMITTED: June 23, 1959

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5.4000 2220
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S/194/62/000/002/056/096
D273/D301

AUTHORS: El'piner, I. Ye. and Sokol'skaya, A. V.

TITLE: The influence of inert gases on oxidation processes in a field of ultrasonic waves

PERIODICAL: Referativnyy zhurnal, Avtomatika i radioelektronika, no. 2, 1962, abstract 2-5-25s (V sb. Rol'perekisey i kisloroda v nach. stadiyakh radiobiol. effekta. M., AN SSSR, 1960, 105-115)

TEXT: In the principle of the study of the mechanism of ultrasonic chemical reaction (as also in radiation chemistry) there lies the notion of radiolysis or photolysis of water which stipulate the arising of two interrelated processes, leading to the formation of free radicals OH and H and of molecular substances: H_2O and H_2. In the case of ultrasonic action these processes apparently pass into the gaseous phase -- cavitation voids. However, the study of processes which bring about cavitation voids leads to great experimental difficulties. In this respect, the comparison between ultra-

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sonic chemical reaction and chemical reactions which take place under the action of vigorous radiations, light energy, or electronic flow, etc. can help. Experimental data are provided which are of interest from the point of view of the study of processes which are akin to the phenomenon of oxidation, caused at determined conditions by the said physical agents. It is found that in a sounded water solution of methylene chloride (CH_2Cl_2) the synthesis of a new compound $C_{10}H_2O_3Cl_2$ is observed. It was also found that in an ultrasonic field some substances oxidize preferentially in the presence of argon and others of acid. Under the action of ultrasound in an argon saturated solution of Mohr's salt (0.01 N$FeSO_4$) the chemical transformation of 2-valent iron is expressed in the transition of the latter into 3-valent ions. Data are presented on the action of ultrasound on albumen and amino-acids in the presence of oxygen and of inert gases. Water solutions of a series of amino-acids saturated with oxygen under the influence of ultrasound produce formaldehyde. It was also discovered that, in the presence of

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argon, the coagulating action of ultrasound on albumen solutions was considerably increased. An explanation is given of the influence of inert gases on the course of the process of oxidation in an ultrasonic field: Inert gases which are in the cavitation voids, apparently act in different ways on the formation in these voids of radicals, in particular OH radicals, indicating the definite influence on the chemical activity of these and other radicals. 7 figures. 1 table. 16 references. [Abstracter's note: Complete translation.]

Card 3/3

EL'PINER, I.Ye.; SOKOL'SKAYA, A.V.

Oxidation processes of biologically-active substances in a field of ultraviolet waves. Biofizika 5 no.1:21-27 '60.
(MIRA 13:6)

1. Institut biologicheskoy fiziki AN SSSR, Moskva.
(ULTRAVIOLET RAYS eff.)
(OXIDATION REDUCTION radiation eff.)